Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1.   (Currently Amended) A honeycomb structure made by joining a plurality of honeycomb segments in each of which a plurality of cells each having a quadrilateral sectional shape are formed by being defined by a plurality of partition walls which are at right angles to each other, characterized in that some but not all of the honeycomb segments constituting at least a portion of the outer periphery of the honeycomb structure have a structure in which compression strength of a majority of partition walls is larger than that of the honeycomb segments constituting the other portions of the honeycomb ~~structure.~~structure, wherein the plurality of partition walls, within the some but not all honeycomb segments, form an angle of 20 to 70 degrees within respect to a tangent of the outer periphery of the honeycomb structure at the point the partition wall intersects the periphery.

2.   (Canceled)

3.   (Currently Amended) The honeycomb structure according to ~~claim 2~~claim 1 wherein the partition walls within the some but not all honeycomb segments have an average partition wall thickness larger than the honeycomb segments constituting the other portions of the honeycomb structure.

4.   (Currently Amended) The honeycomb structure according to ~~claim 2~~claim 1, wherein the partition walls within the some but not all honeycomb segments have partition walls having an average porosity smaller than the honeycomb segments constituting the other portions of the honeycomb structure.

5.   (Currently Amended) The honeycomb structure according to ~~claim 2~~claim 1, wherein the some but not all honeycomb segments have a cell density larger than the honeycomb segments constituting the other portions of the honeycomb structure.

6.   (Currently Amended) The honeycomb structure according to ~~claim 2~~claim 1, wherein the some but not honeycomb segments further includes partition walls connecting the opposing corners of the respective cells each having a rectangular sectional shape, and cells each having a triangular sectional shape in a radial direction, which are formed between the respective partition walls.

7.   (Original) A honeycomb structure made by joining a plurality of honeycomb segments in each of which a plurality of cells each having a rectangular sectional shape in a radial direction are formed between partition walls which are at right angles to each other, characterized in that the outer periphery of the honeycomb structure is composed of honeycomb segments in which all the partition walls in the partition wall length direction on a cross section perpendicular to the fluid passage direction of a cell form an angle of 0° or more to less than 20°, or more than 70° to 90° or less with respect to a tangent to the outer periphery of the honeycomb structure at the positions where the respective partition walls contact with an outer peripheral wall.

8.   (Previously Presented) The honeycomb structure according to claim 1, wherein all of the partition walls of the honeycomb segments with the larger compression strength have a compression strength larger than that of the honeycomb segments constituting the other portions of the honey structure.

9.   (Previously Presented) The honeycomb structure according to claim 1, wherein the partition walls of the honeycomb segments with the larger compression strength have a larger compression strength along the entire length of the partition walls.

10.   (Previously Presented) The honeycomb structure according to claim 1, wherein the plurality of honeycomb segments are joined together with a joining agent.